

Rerefined motor oil: Overcoming the myths

A newsletter to supplement the resource manual



**DEVELOPED BY THE
COMMUNITY ENVIRONMENTAL COUNCIL
UNDER A GRANT FROM
THE CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD
JUNE 1997**



Rerefined Oil Workshops

From September 1996 through April 1997, the Community Environmental Council (CEC) conducted 38 rerefined oil workshops for local government fleet supervisors, automotive technicians, purchasing agents and recycling coordinators. The purpose of the workshops was to disseminate information and respond to common concerns about rerefined lubricating products including quality, technology, performance, cost, testing, standards and warranties. The goals of the project were to overcome quality perception barriers and increase the demand for rerefined oil in California.

Overall, the workshops had more than 450 participants with representatives from 77 cities, 29 counties and 14 school districts. Other participants represented federal and state government agencies, private sector businesses, universities, non-profit organizations and oil companies.

At the completion of the workshops, CEC had identified 24 jurisdictions in California - both cities and counties - that were using rerefined lubricating products in their fleet vehicles.

CEC also found that while the workshops were very successful in dispelling the myths about rerefined oil, many workshop participants, particularly fleet supervisors, wanted more information about rerefined oil.

CEC received requests for additional information on product cost, specifications, oil quality, testing strategies and results, manufacturer warranties, availability of other rerefined lubricating products such as ATF and gear oils, distributors, and government agencies and private sector companies that use rerefined lubricating products.

Contents at a glance . . .

On the following pages, you will find information about:

- ✓ Local, state and federal government agencies that use rerefined lubricating products
- ✓ Private sector companies that use rerefined lubricating products
- ✓ API classifications and other requirements
- ✓ Testing strategies and results
- ✓ California distributors of rerefined products
- ✓ Strategies to address cost concerns
- ✓ Statements from John Deere, Cummins and Caterpillar
- ✓ Retail markets for rerefined oil

Statements About Rerefined Oil

Car manufacturers such as General Motors, Chrysler, Ford and Mercedes Benz have issued warranty statements about rerefined oil. These statements say that as long as the rerefined oil is certified by the American Petroleum Institute (API) and the vehicle is serviced at the recommended intervals, the use of rerefined oil will not void the vehicle warranty.

CEC gathered statements from Caterpillar, Cummins, John Deere and Mack Trucks. What these manufacturers say about rerefined oil is presented below.

Despite a number of attempts to reach appropriate personnel at Harley Davidson and Case we were unable to obtain warranty information related to rerefined oil. If you have a contact, please let us know! We can be reached at 805/963-0583.

Caterpillar

"Rerefined base stock oils are acceptable for use in Caterpillar engines if these oils meet the performance requirements specified by Caterpillar. Rerefined oils can be used exclusively in a finished oil or in combination with new base stocks. The U.S. Military and other heavy equipment manufacturers have also accepted the use of rerefined base stock oils with the same criteria."

The rerefining process should be adequate to remove all wear metals and oil additives that were present in the used oil. This type of re-refining is generally accomplished by vacuum distillation and hydrotreating the used oil. Filtering alone is inadequate for producing a high quality rerefined base stock from used oil."

Source: Caterpillar Commercial Diesel Engine Fluids Recommendations for Lubricants, Diesel Fuel, and Coolants - Supplement. SEBU6251-05. June 1996.

Cummins

"Rerefined lubricating oils can be used in Cummins engines if they have an API quality designation signifying they have been tested and meet the minimum standards for that quality level. It is important to be certain these oils are actually rerefined and not just reclaimed. Rerefined oils have been treated to remove additive and wear metal debris, distilled and refortified with additives."

Source: Cummins Service Bulletin. Cummins Engine Oil Recommendations. Bulletin Number 3810340-02. May 1996. Customer Service Center, 1-800-DIESELS, 1-800-232-6393 (fax)

John Deere

"John Deere supports the recycling of used oil. Since rerefined engine and transmission oils must provide the same performance levels as other lubricants, they also must meet the requirements for: (1) the physical and chemical specifications and (2) all performance test requirements."

Source: Oil Sales Guide Publications: John Deere.

Mack Trucks, Inc.

Although we did not get a statement from Mack Trucks, we did receive information about the various rerefined lubricating products that are listed on the accepted MACK EO-L PLUS specification. The EO-L PLUS supplements rather than replaces EO-L. The only rerefined product that we are aware of that is currently listed as approved lubricants meeting the EO-L Plus specifications is the Rosemead SOAR SDLX 15W40. This specification does not mean you cannot use other rerefined products. Call Mack Customer Service below if you have any questions.

Source: Mack Service Bulletin, #91-D023, 7/24/96. Customer Service, 610/709-3961.

Rerefined Oil Procurement

Local/State/Federal Agencies and the Private Sector

The tables on the following pages profile 24 local agencies in California that use rerefined oil. The tables also identify some of the federal and state agencies and private sector companies that use rerefined oil. These government departments and private companies were discovered during CEC's workshops or project research. The tables demonstrate the range of agencies and companies that are purchasing rerefined oil for use in fleet applications.

Our purpose is to give you relevant information - data you can use in assessing the feasibility for switching your fleet over to rerefined oil. The tables are designed to answer frequently asked questions, such as:

- ✓ Who in government and the private sector are using rerefined oil in their fleet?
- ✓ What brand and grade?
- ✓ How much does it cost?
- ✓ In what volumes?
- ✓ How much is purchased on an annual basis?
- ✓ What kind of vehicles do they run it in?
- ✓ Who is the engine/vehicle manufacturer?
- ✓ Who is their distributor?
- ✓ How long have they been using rerefined oil?

Cost

The cost information is based on price per unit before taxes and the oil recycling incentive fee. Some agencies purchase oil in bulk while others purchase in 55-gallon drums or 12 one-quart cases. Be sure to check the volume when comparing cost data - often greater volumes result in lower prices per unit.

Emergency Vehicles

A large concern of many fleet supervisors and mechanics is the performance of rerefined oil in vehicles used for emergency, public safety and law enforcement activities. The tables on the following pages lists 20 local and state government agencies that install rerefined oil in their fire trucks, police cars and motorcycles. For example, the California Department of Fire and Forestry uses rerefined oil in its firetrucks and Alameda County Departments of General Services and Public Works have 335 police cars that run with rerefined oil. A private sector company, Cinema Vehicle Services, which provides stunt vehicles to the movie industry, uses rerefined oil in police cars, fire trucks, and light and heavy duty passenger cars and trucks.

Contacts

There is a contact name and telephone number for every agency or company listed in the tables. In addition to providing us with information, these fleet managers have agreed to answer any questions about their use of rerefined oil.

Although the chart may not represent every local government that is purchasing rerefined oil, we are sure it is about as comprehensive as any list could be (as of June 1997). Please let us know if we have missed your agency or others.

Once you have reviewed the chart, turn to the distributor list at the end of the newsletter to find a distributor in your area.

CA LOCAL GOVERNMENTS THAT USE REREFINED LUBRICATING PRODUCTS

AGENCY	BRAND	TYPE OF LUBRICANTS	QNTY (GL/YR)	VOLUME PURCHASED	COST PER UNIT	DISTRIBUTOR	VEHICLES/EQUIPMENT	MANUFACTURER	YEARS USING
Alameda Co Dept Gen Services & Pub Wks Tom Gannon (510) 272-6401	Coast - U.L.T.R.A.	10W30 15W40 Hydraul A/W 68 ATF	3,000 575 55 220	bulk - 1,200Gal bulk - 500Gal 5Gal 5Gal	\$3.08/Gal \$2.88/Gal \$2.49/Gal \$3.57/Gal	Coast Oil Co. Mark Mitchell (408) 252-7720	Total - 820 485 Lt. 335 Police 5 Mtrcyc	Ford, GM, Chevy, Chrysler, Suzuki	3 years
City of Berkeley Gary Luchini (510) 644-8557	Coast - U.L.T.R.A.	15W40 10W30 ATF Gear oil 80/90	2,000 200 800 120	bulk - 350Gal bulk - 80Gal bulk - 120Gal 32Gal	\$2.67/Gal \$2.67/Gal \$2.79/Gal \$3.83/Gal	Coast Oil Co. Mark Mitchell (408) 252-7720	Total - 470 350 Lt, 75 Police 120 Hvy 10 Mtrcyc	Ford, Chevy, Cummins Detroit Diesel, Harley-Davidson	4.5 years
City of Burbank Bill Kaufman (818) 238-3775	Rosenead - SOAR	15W40 5W30 straight 40	2,830 650 2,210	bulk 2,000, 55Gal bulk - 2,000Gal bulk - 2,000Gal	\$3.36/Gal \$3.72/Gal \$2.92/Gal	Merrimac Mary Hazelrig (310) 983-9350	Total - 650 420 Lt, 230 Hvy 90 Police, 10 Fire 25 Mtrcyc	Chevy, Ford, GM, Volvo Caterpillar, Cummins, GMC, Amer La France, Chrysler, Kawasaki	7.5 years
City of Chino Kurt Powell (909) 591-9882	Chevron - ECO	straight 30	220	55Gal	\$3.34/Gal	Southern Counties Oil (714) 744-7140	Total - 80 65 Lt, 15 Hvy	Chevy, Ford, Internat'l	5 months
City of Davis Jim MacDonald (916) 757-5653	Coast - U.L.T.R.A.	15W40 Hydraul A/W 32	1,000 15	bulk - 275Gal 5Gal	\$2.96/Gal \$3.16/Gal	Norcal Petroleum Bill Wien (916) 662-5481	Total - 240 160 Lt, 80 Hvy 20 Police, 10 Fire 4 Buses, 3 Mtrcyc	Ford, GMC, Internat'l, Cummins, Caterpillar, Detroit Diesel, Becks, Kawasaki	4 years
City of El Segundo Jack Hilton (310) 322-3769	Unocal - Firebird	straight 30	1,000	bulk - 650Gal	\$2.64/Gal	76 Products Co. (800) 447-7676	Total - 150 90 Lt, 60 Hvy 10 Fire, 10 Mtrcyc	Ford, Chevy, Cummins, Detroit Diesel, Freightliner, Caterpillar, Kawasaki	5 months
City of Escondido Mike Emberton (760) 738-4393	Rosenead - SOAR	10W30 straight 40	1,200 850	bulk - 250Gal bulk - 250Gal	\$3.21/Gal \$2.99/Gal	Temecula Oil Tom Andrade (909) 676-2660	Total - 450 325 Lt, 125 Hvy 120 Police, 30 Fire	Ford, Chevy, Detroit Diesel, Caterpillar, Cummins, Dodge	3 years
City of Eureka Casey Brose (707) 441-4258	Unocal - Firebird	15W40	600	55Gal	\$4.32/Gal	L & M Renner Mike Renner (707) 443-1645	Total - 200 80 Lt, 120 Hvy 15 Police, 10 Fire	Ford, GM, Cummins, Caterpillar	2 months

CA LOCAL GOVERNMENTS THAT USE REREFINED LUBRICATING PRODUCTS

AGENCY	BRAND	TYPE OF LUBRICANTS	QNTY (GL/YR)	VOLUME PURCHASED	COST PER UNIT	DISTRIBUTOR	VEHICLES/ EQUIPMENT	MANUFACTURER	YEARS USING
City of Irvine Curtis Smith (714) 724-7762	Rosemead - SOAR	15W40 Hydraul. A/W22S Tract fluid 80/90	850 55 55 5	55Gal 55Gal 55Gal 5Gal	\$3.07/Gal \$2.37/Gal \$3.75/Gal	Rosemeade James Prado (562) 941-3261	Total - 200 160 Lt, 40 Hvy 20 Police	Ford, Chevy, Caterpillar Detroit Diesel, Deere GMC, Honda, Toyota, Chrysler	3.5 years
City of Lakewood Dave Kersting (310) 866-9771	Rosemead - SOAR	straight 30 ATF Dextron III Hydraul 10	2,200 55 55 55	55Gal 55Gal 55Gal	\$3.64/Gal \$4.08/Gal \$3.08/Gal	Rosemead Richard Schoensiegl (562) 941-3261	Total - 100 85 Lt, 15 Hvy 5 Buses	Ford, Chevy	5 years
City of Modesto Dennis Turner (209) 577-5306	Unocal - Firebird	10W30 15W40 straight 40	770 1,775 725	55Gal bulk - 500Gal bulk - 500Gal	\$4.09/Gal \$2.99/Gal \$3.60/Gal	C.L. Bryant Charles Bryant (209) 537-7600	Total - 550 300 Lt, 250 Hvy 150 Police 30 Buses, 15 Mtrcyd	Ford, Chevy, GM, Detroit Diesel, Volvo, Cummins, Caterpillar, Harley Davidson	4.5 years
City of Palo Alto Alan Simpson (415) 496-6945	Coast - U.L.T.R.A.	15W40	1,200	bulk - 330Gal	\$2.88/Gal	Coast Oil Co. John Allen (408) 252-7720	Total - 500	GMC, Ford, Cummins, Caterpillar, Chrysler	5 years
City of Petaluma Alan Kirby (707) 778-4395	Rosemead - SOAR	15W40 10W30	250 550	bulk - 120Gal bulk - 120Gal	\$4.01/Gal \$4.47/Gal	Peninsula Oil Co Tom Wilson (415) 282-4414	Total - 150 125 Lt, 25 Hvy 20 Police	Ford, Chevy, Internat'l, Cummins, Caterpillar	2 years
City of Sacramento Doug Scott (916) 433-6234	Chevron - ECO	15W40	18,350	bulk - 960Gal & 55Gal	\$2.67/Gal \$3.32/Gal	BC Stocking Zac James (916) 678-7313	Total - 2,000 1,585 Lt, 415 Hvy 200 Police, 50 Fire 5 Buses	Ford, Chevy, Chrysler, GM, Cummins, Internat'l, Volvo, Dodge, Deere, Caterp, Detroit Diesel	3 months
City & County of San Francisco Jim Johnson (415) 550-4600	Rosemead - SOAR	10W30	1,650	bulk - 240Gal	\$3.52/Gal	Peninsula Oil Tom Wilson (415) 282-4414	Total - 1,350 1350 Lt	Ford, Chevy, Chrysler	4 years
City of San Luis Obispo Pete Hammerich (805) 781-7046	Rosemead - SOAR	15W40	3,300	55Gal	\$3.92/Gal	JB Dewars Brian Cook (805) 543-0180	Total - 240 170 Lt, 70 Hvy 15 Police	Chevy, GMC, Ford, Caterpillar	3 months

CA LOCAL GOVERNMENTS THAT USE REREFINED LUBRICATING PRODUCTS

AGENCY	BRAND	TYPE OF LUBRICANTS	QNTY (GL/YR)	VOLUME PURCHASED	COST PER UNIT	DISTRIBUTOR	VEHICLES/ EQUIPMENT	MANUFACTURER	YEARS USING
Santa Barbara Co Dep't Roads/Transfer Station ECO Allan Tonoli (805) 681-5614	Chevron -	15W40	2,000	bulk - 300Gal	\$2.68/Gal	Pinto Petroleum Tony Pinto (805) 643-6129	Total - 125 125 Hwy	Internat'l, GMC, Chevy, Caterpillar, Cummins, Deere, Detroit Diesel	2 months
Santa Cruz Co Depts Gen Serv & Pub Wks Jim Humphreys (408) 454-2774	Coast - Evergreen	10W30 15W40	1,200 1,820	bulk - 175Gal bulk - 400Gal & 55Gal	\$3.86/Gal \$3.48/Gal	Coast Oil Co. Kevin Larson (408) 252-7720	Total - 550 350 Lt, 200 Hwy 30 Police	Ford, GM, Chevy, Deere, Cummins, Detroit Diesel, Caterpillar, Volvo	4.5 years
City of Santa Monica Mike Becker (310) 458-8517	Rosemead - SOAR	15W40 straight 40 Hydraul A/W 315 Hydraul A/W 68	2,300 6,500 3,800 385	blk5,000G&cs/qt bulk 10,000Gal 5,000Gal 55Gal	\$2.68/Gal \$2.18/Gal \$1.96/Gal \$2.11/Gal	Rosemead Richard Schoen Siegel (562) 941-3261	Total - 700 350 Lt, 350 Hwy 20 Fire, 160 Buses 25 Scooters	Chevy, Ford, Dodge, GM, Internat'l, Caterpillar, Cummins, Deere, Detroit Diesel	4.5 years
City of Santa Rosa Chuck Hammond (707) 543-3882	Unocal - Firebird	15W40	2,735	bulk - 2000Gal	\$3.92/Gal	76 Products Co. Keith Westbrook (707) 448-8279	Total - 530 450 Lt, 80 Hwy 50 Police, 15 Fire	Ford, Chevy, Chrysler, Case Caterpillar, Detroit Diesel, Cummins, Deere, Perkins	4.5 years
City of Thousand Oaks Bob Miller (805) 449-2499	Rosemead - SOAR	15W40 Hydraul	600 45	bulk - 240Gal bulk - 100Gal	\$3.20/Gal \$3.41/Gal	Ventura Oil Co. G. Gullickson (805) 485-7855	Total - 220 185 Lt, 35 Hwy	Ford, Chevy, Dodge, Cummins, Deere, Caterpillar	2 years
City of Ventura Ernie Parsons (805) 652-4573	Unocal - Firebird	10W30 15W40	900 800	bulk - 1,000Gal bulk - 1,000Gal	\$2.65/Gal \$2.65/Gal	Ventura Oil Co. George Gullickson (805) 485-7855	Total - 500 350 Lt, 150 Hwy 25 Police, 15 Fire 5 Mtrcy, 10 Scoot	Chevy, Ford, Dodge, Cummins, Internat'l, Detroit Diesel	1.5 years
Ventura County Tony Patton (805) 388-4570	Unocal - Firebird	straight 30 straight 40 ATF Dextron Hydraul A/W42 10W30 Gear Oil 80/90	2,600 140 1,375 605 2,500 820	bulk - 280Gal 55Gal bulk - 900Gal 55Gal bulk - 1,650Gal 55Gal	\$3.10/Gal \$4.18/Gal \$2.10/Gal \$3.59/Gal \$4.10/Gal \$3.35/Gal	Ventura Oil Co. George Gullickson (805) 485-7855	Total - 1,400 1,050 Lt, 350 Hwy 400 Police 10 Buses	Ford, Chevy, GM, Detroit Diesel, Cummins, Internat'l	4.5 years
Washington Unified School District Hamindar Singh (916) 375-7690	Unocal - Firebird	15W40	220	bulk - 220Gal	\$3.48/Gal	Ramos Oil Hep Hepner (916) 371-2570	Total - 55 20 Lt, 35 Hwy 25 Buses	Ford, GM, Cummins, Caterpillar	2 months

OTHER FLEETS THAT USE REREFINED LUBRICATING PRODUCTS

AGENCY OR COMPANY	BRAND	TYPE OF LUBRICANTS	QNTY (GL/YR)	VOLUME PURCHASED	COST PER UNIT	DISTRIBUTOR	VEHICLES/ EQUIPMENT	MANUFACTURER	YEARS USING
United States Postal Service - Torrance Vehicle Maint. Facility Mike Chin (310) 328-9070	Rosemead - SOAR	15W40	1,200 bulk - 500Gal	\$2.69/Gal	Rosemead Richard Schoenriegel (562) 941-3261	Total - 800 790 Lt Dty 10 Hwy Dty	Chevy, GM		2 years
California Dept. General Services Sacramento Facility Stan Pochop (916) 657-2311	Unocal - Firebird	10W30	850 bulk - 410Gal	\$3.68/Gal	76 Products Co. (800) 447-7676	Total - 750 550 Lt Dty 200 Hwy Dty Police	Ford, Chevy, GM, Dodge, Internat'l, Cummins		1.5 years
Ca. Dept. of Forestry Madera, Mariposa & Merced Ranger Station John Carrier (209) 966-3622	Unocal - Firebird	15W40	550	\$3.26/Gal	76 Products Co. (800) 447-7676	Total - 90 45 Lt Dty 45 Hwy Dty 20 Fire	Ford, Internat'l, GMC, Cummins, Caterpillar		4 years
Cal San Bill Harwood (562) 869-0901	Rosemead - SOAR	15W40 10W30 40 straight ATF C-4 gear oil 85/140 grease EP	9,000 55Gal bulk - 500Gal bulk - 500Gal bulk - 500Gal 55Gal	\$3.27/Gal \$2.49/Gal \$2.49/Gal \$2.82/Gal \$4.64/Gal \$1.25/Lb	Rosemead Oil James Prado (562) 941-3261	Total - 110 10 Lt Dty 100 Hwy Dty	Internat'l, GMC, Detroit Diesel, Cummins, Volvo White		5 years
Waste Management Industries Bob McDougald (510) 563-4217	Coast - U.L.T.R.A.	15W40 straight 30 straight 10 hydraul. A/W 46 ATF	N/A N/A N/A N/A N/A	bulk - 3000Gal bulk - 110Gal bulk - 110Gal bulk - 480Gal bulk - 240Gal	Coast Oil Co. Rick Gron (408) 225-7720	Total - 90 15 Lt Dty 75 Hwy Dty	Volvo White, Ford, Chevy, Caterpillar		2 years
Cinema Vehicle Services Ray Claridge (818) 780-6272	Unocal - Firebird	10W30 20W50	600 600	\$4.32/Gal \$4.32/Gal	76 Products Co. (800) 447-7676	Total - 375 300 Lt 75 Hwy 150 Police 5 Fire 10 Buses	Ford, Cummins, Detroit Diesel, Halscott		9 months
Southern California Gas Company Gregory Hall (213) 244-5634	Rosemead - SOAR	15W40	14,500	\$2.67/Gal	Rosemead James Prado (562) 941-3261	Total - 5,100 4250 Lt Dty 850 Hwy Dty	Ford, Cummins Chrysler, GM		7 years

Your Questions Answered

CEC's rerefined oil workshops addressed many concerns about the quality, performance, cost and methods of producing rerefined oil. That didn't stop workshop participants from asking a lot of questions, which sometimes we could not answer. As a result, we set out to answer those questions and we have complied the results below.

Local Dealer Information

Although many engine manufacturers such as Ford, Chrysler, GM and Detroit Diesel have issued warranty statements allowing the use of rerefined oil, local dealers may not be aware of these statements or even rerefined oil! It is always best to check with the manufacturer directly rather than the dealer. CEC gathered information from other vehicle manufacturers, such as Cummins, Caterpillar and John Deere, on their positions on rerefined oil. (See page 2.)

A federal law, known as the Magnuson-Moss Warranty Act, maintains that if any after market automotive product (including motor oil produced from a rerefined or virgin base stock) meets the performance requirements specified by the engine manufacturer, the manufacturer cannot prohibit its use and must honor the warranty, or provide a replacement product at no charge to the customer.

Therefore, if you are sure that the oil you are using meets the manufacturer's specifications and has been maintained at the recommended service intervals, the vehicle manufacturer cannot void your warranty. You can be confident that a local dealer cannot void your warranty if the manufacturer states otherwise. If you encounter a problem with a local dealer you can appeal to the manufacturer headquarters directly, if necessary.

Cost Concerns

The cost of rerefined oil is generally competitive with virgin oil. As more jurisdictions use rerefined products the market will expand and continue to support competitive pricing. If you are having trouble getting competitive bids for rerefined oil because of your location, purchasing volume, existing contract, or other reasons, there are many ways to pursue a competitive price. These include:

- ✓ secure the most competitive bids
- ✓ increase the volume of the products purchased
- ✓ piggyback on existing contracts
- ✓ set up joint purchasing agreements
- ✓ establish a price preference
- ✓ offset cost with oil grant funds
- ✓ pursue a closed loop contract

Secure competitive bids

There may be number of oil distributors in your area that can supply rerefined oil. When you renew your lubricating products contract, release your bid package to all of the distributors and request rerefined bids. Inform the distributors that the bid package is open to everyone. See pages 16-19 in this newsletter for a list of all distributors of rerefined oil in California.

Increase volumes purchased

If you currently purchase oil in quart containers or 55-gallon drums, consider switching to a bulk container. The per gallon price of rerefined oil (like virgin oil) will go down as the quantity you purchase goes up. Also, some distributors may provide apparatus such as storage tanks.

Piggyback existing contracts

"Piggybacking" allows smaller jurisdictions to buy off a contract established by a larger jurisdiction. All cities and counties in the state have the option to buy off the California Department of General Services Lubricating Products Contract. For more information about the contract, call 916/445-9476.

Joint purchasing agreements

A joint purchasing agreement can be developed between multiple jurisdictions to solicit bidding from distributors under one contract. Combining your oil purchase needs with those of other jurisdictions may lead to better pricing.

Price preference

Some jurisdictions believe that the environmental and political reasons for switching to rerefined oil outweigh the cost difference. Local governments can institute a price preference policy to allow the purchase of rerefined products at a specified higher price. Some jurisdictions have instituted mandates which means purchasing rerefined regardless of price. Price preferences are instituted through local government measures. In some cases it requires a resolution by the City Council or Board of Supervisors. In others, it is approved directly by the voters through a ballot referendum or initiative.

Oil grant funds

Under the Used Oil Block Grant program, local governments can apply for grant funding to undertake used oil collection and education programs. Block grant funds can also be used to offset the difference in cost between rerefined oil and crude based oil by as much as 10%. Speak to your local recycling or environmental coordinator to identify whether there are block grant funds available.

Closed loop contract

A local government can develop one contract for the collection of used oil and purchase of rerefined oil. In closed loop systems, the collected used oil is sent to be rerefined. Oil collected in closed loop systems in California is sent to the Evergreen Oil rerefinery in Newark. Setting up a contract that requires the collection of used oil for rerefining and the delivery of rerefined finished product may lead to a better price.

Oil collection apparatus

If your current distributor provides oil dispensers, tanks and other apparatus, you may think you are obtaining these services for free. Chances are that the oil company has taken these provisions into consideration before setting up pricing. If you are dealing with a rerefined vendor, they may be able to supply you with the same apparatus.

Rerefined Oil Testing & Analysis

If you are interested in rerefined oil but you or someone else in your agency is still skeptical about whether to switch the entire fleet, conduct your own in-house testing. CEC consulted some of the fleet supervisors that conducted their own testing to find out the best methods.

1: Select a representative sample of your fleet.

If you want to be confident that rerefined oil works in all types of vehicles, test a variety of vehicles and engines. It will be difficult to convince a supervisor that rerefined oil can be used in Detroit Diesel fire engines if the oil is only tested in Ford passenger vehicles.

2: Test a significant percent of your fleet.

The greater the number of vehicles you test, the more comprehensive the results will be. If you have a fleet of 1000 vehicles but only test 5 vehicles, the results will not be as conclusive as the results from 20 vehicles.

3: Use vehicles where you have similar vehicles using virgin based oils.

For every vehicle you use to evaluate rerefined oil, compare it to a second vehicle using virgin oil of the same make and model and also approximately the same mileage and maintenance history. If comparable vehicles are not available, use previous data analysis sheets from vehicles run on virgin oil.

4: Make sure oil change intervals are at the same mileage and work hours.

Vehicles that have accumulated the same number of mileage and work hours provide a more accurate comparison. The comparison may not be accurate if 2 vehicles have accumulated 3000 miles, but one was used for only long distance highway driving and the other was used for short-distance, off-road driving with frequent stops.

5: Run data analysis for more than one oil change interval.

Run a sequence of oil analyses. External variants can be dismissed or discovered over a longer term comparison.

6: Test different aged vehicles of the same make and model.

Fleets are made up of new and old vehicles. To get a relative sample, test a variety of vehicles from different model years. External factors can increase with age so testing vehicles of different ages can help you identify and rule out external factors.

7: Have your oil analyses run through reputable laboratories.

There are numerous reputable laboratories that do data analysis. They can be located in the telephone book, through local oil distributors and local vehicle dealers. Testing can be less expensive through an oil company. The following analytical labs provide testing services:

- ✓ Tenco Laboratories
7310 Pacific Ave.
Pleasant Grove, CA 95668
(916) 991-8200
- ✓ Herguth Laboratories Inc.
101 Corporate Place
Vallejo, CA 94590
(707) 554-4611
- ✓ Cleveland Technical Center
101 West Mojave
Phoenix, AZ 85003
(800) 445-7930
- ✓ Shepherd Machinery
10006 Rose Hills Rd.
Whittier, CA 90601
(562) 463-4097

San Luis Obispo Oil Analyses

Type of Vehicle	Chevy Caprice	Chevy Caprice	Caterpillar 3116	Caterpillar 3116	Caterpillar 918F	Caterpillar 918F
Vehicle Use	Police Patrol Car	Police Patrol Car	Topkick Truck	Topkick Truck	Rubber Tire Roller	Rubber Tire Roller
Total Mi/Hr	44,430	42,680	33,652	9,115	344	424
Mi/Hr Oil	4,292	4,959	222	299	344	424
Brand of Oil	Mobil Delvac 1200	Rosemead SOAR	Rosemead SOAR	Rosemead SOAR	Rosemead SOAR	Rosemead SOAR
Grade of Oil	15W40	15W40	15W40	15W40	15W40	15W40
Physical Data						
Viscosity	14.1	14.3	12.5	12.2	13.5	13.3
Water	<.10	<.05	<.10	<.10	<.10	<.05
Fuel	<1	<1	<1	<1	<1	<1
Solids						
Fuel soot	0.4		0.6	0.6	0.6	0.7
Oxidation	18	11	7	4	2	3
Nitration	5	3	0	0	0	1
TBN	6.5	6.6	7.6	8	7	6.7
Elemental Concentrations (PPM)						
Silicon	13	15	2	2	18	22
Iron	17	14	2	22	38	52
Chromium	0	1	1	2	15	21
Nickel	0	0	1	1	1	0
Aluminum	4	4	1	6	9	12
Tin	0	0	2	0	0	0
Copper	15	14	3	13	106	326
Lead	45	42	2	3	3	7
Silver	0	0	0	0	1	0
Sodium	11	13	4	8	26	38
Boron	39	55	139	64	102	49
Phosphorus	58	1072	1124	985	865	900
Zinc	525	1228	1576	1286	1299	1251

Pete Hammerich, the Fleet Manager for the City of San Luis Obispo provided CEC with the results of oil analyses he had completed using both rerefined and virgin oil.

The above data was accumulated for two purposes. The first is to show physical data and elemental concentrations for rerefined products. The second is to illustrate some of the suggestions on the previous page.

The table includes 6 samples taken from 3 different makes and models of vehicles. The City of San Luis Obispo tested more than 5% of their fleet from 8 different types of vehicles. Although the above data is only a sample of the testing the City of San Luis Obispo did, it indicates that the City tested a variety of types of vehicles.

Columns I and II compare two similar vehicles; Chevy police patrol units. They each have approximately 40,000 miles and each was operated 4,000 to 5,000 miles since the last oil change. The results compare one unit using virgin oil and the other using rerefined.

Columns III and IV compare two vehicles of the same make and model, but one is a relatively new vehicle and the other has more than 3 times the miles. Both of these results are from rerefined oil.

Columns V and VI compare two similar vehicles that are brand new and receiving their first oil change. This is done to help identify and dismiss external variants. These same vehicles were tested again at their next service intervals.

Retail Markets for Rerefined Oil

The retail market for rerefined lubricating products in California is developing slowly. For any new recycled product entering the retail market, it takes time and money to educate consumers about quality and performance. Rerefined oil is not any different. Retail sales of lubricating products is very competitive and rerefiners face an uphill battle.

Safety-Kleen

Safety-Kleen America's Choice rerefined lubricating motor oil is available at every WalMart store in California with Tire/Lube Express services. For \$18.74, you can have your oil changed with America's Choice 10W30. It costs \$0.98 per quart to buy it off the shelf. If you do not see it at your area WalMart, ask the manager for it.

Safety-Kleen makes available its entire line of rerefined products through Parts Plus, a distributor for retail automotive stores. The company is currently working on a deal with Goodyear Tire stores to stock rerefined oil. Expect to see it on the shelf sometime this fall.

76 Products

76 Products is negotiating with Kragen Auto Parts to have its Firebird rerefined products stocked in stores throughout the state. Although it would make sense that 76 Products service stations would stock rerefined oil, station managers are reluctant to make it available because they do not think anyone will buy it.

If you want to purchase Firebird for use in your personal car, ask for it at your local 76 Products service station.

Market Development Efforts

The California Integrated Waste Management Board (CIWMB), local governments and organizations such as CEC, are implementing market development projects to increase the availability of rerefined oil at the retail level. These projects are supported through the CIWMB's Used Oil Grants program. For more information about the CIWMB's program, call Carol Mortensen at 916/255-2370.

Community Environmental Council

CEC is currently implementing a retail market development project that targets automotive parts stores and consumers in Santa Barbara County. Twenty stores throughout the County will host an interactive computer kiosk that discusses proper used oil disposal, and the quality and performance of rerefined oil. In both English and Spanish, consumers will be able to use the kiosk to answer their questions. Each store will also have Safety-Kleen and Firebird rerefined 10W30 motor oils for sale.

Ventura County

Ventura County received a CIWMB used oil grant to develop and demonstrate a marketing strategy to promote rerefined motor oil throughout the County. The project will also educate the public and provide technical assistance to private sector fleet and garage managers in the conversion to rerefined oil.

City of Thousand Oaks

In conjunction with the efforts in Ventura County, the City of Thousand Oaks is developing a retail marketing program to increase the availability of rerefined motor oil in area automotive retail stores.

Ross-Campbell, Inc.

Ross-Campbell has received a grant to work with the CIWMB and local government agencies in Northern California to develop and implement retail market development programs in their communities.

Rerefined Lubricating Products

Although CEC's workshop focused primarily on the quality and performance of rerefined motor oils, there are a wide range of lubricating products available which are made with rerefined base stock. These include:

- ✓ hydraulic oils
- ✓ transmission fluids
- ✓ tractor fluids
- ✓ gear oils
- ✓ grease
- ✓ turbine/machine oils
- ✓ chain bar oils

CEC contacted a number of rerefined product manufacturers to identify the range of products available. The tables on the following two pages list the lubricating products available from:

- ✓ Coast Oil
- ✓ Rosemead Oil Products
- ✓ Safety-Kleen
- ✓ Lyondell
- ✓ 76 Products
- ✓ Chevron

In the first table the API service classification is listed for the motor oils. In the second table, appropriate application information is listed for the other products. The chart also includes the percentage of rerefined base stock in the product.

When there is less than 100% rerefined, rerefined and virgin base stocks have been combined to attain the proper viscosity. Remember you can request product specification sheets for any of the rerefined lubricating products listed on the chart.

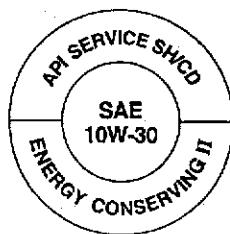


Rerefined Oil Distributors

In response to numerous requests from workshop participants, CEC expanded its rerefined oil vendor guide to include all of the oil distributors in the state of California that can provide rerefined lubricating products to local governments. The distributors are listed alphabetically by location.

We obtained this information directly from the rerefined oil blenders/manufacturers in California, including: Chevron, Coast Oil, Lyondell, Rosemead and 76 Products. Due to the volume of the information, CEC was not able to verify every entry but assumes that the information is correct.

The distributor list can be used to pursue competitive bids for rerefined lubricants. Often there are multiple distributors in the same geographic region providing more than one brand of rerefined lubricants.



COMPANY	LUBRICATING MOTOR OILS	% REREFINED	API SERVICE CLASSIFICATION
COAST OIL COMPANY	ULTRA 5W30	52>	SJ
	ULTRA 10W30	70>	SH ENERGY CONSERVING II, SJ ENERGY CONSERVING
	ULTRA 10W40	70>	SH ENERGY CONSERVING II, SJ ENERGY CONSERVING
	ULTRA 20W50	52>	SH, SJ
	ULTRA 400 30	81	CF, CF-2, SH OR CF, CF-2, SS
	ULTRA 400 40	70>	CF, CF-2, SH OR CF, CF-2, SS
	ULTRA 400 15W40	75>	CG-4, CF-2, CF, SJ, MACK EO-L/EO-K/2, EO-K
		100	SH, SG, SF/CC, CD
SAFETY-KLEEN OIL RECOVERY COMPANY	AMERICA'S CHOICE 5W30	100	SH, SG, SF/CC, CD, MACK EO-L/II
	AMERICA'S CHOICE 10W30	100	SH, SG, SF/CC, CD
	AMERICA'S CHOICE 10W40	100	SH, SG, SF/CC, CD
	AMERICA'S CHOICE 20W50	75	SH, SG, SF/CC, CD
	XR-4000 15W-40	100	CG-4, CF-4, CE, CF-2, CF, CD-II, CD, CC-SG, SH, MACK EO-L/II
	DIESEL XR-2 20W20	100	CD-II, CD, CC
	DIESEL XR-2 30	100	CD-II, CD, CC
	DIESEL XR-2 40	75	CD-II, CD, CC
ROSEMEAD OIL PRODUCTS, INC.	DLX MOTOR OIL 10W-30	100	SH, CD, ECII, ILSAC GF-1
	DLX MOTOR OIL 10W-40	100	SH, CD
	DLX MOTOR OIL 20W50	90	SH, CD
	DLX MOTOR OIL 30	73	SH, CD
	SDLX ENGINE OIL 10	100	CE, CF, CD, SH, EC-1
	SDLX ENGINE OIL 30	91	CE, CF, CD, CF-2, CD-II, SH
	SDLX ENGINE OIL 40	63	CF, CD, CF-2, CD-II, SH
	SDLX ENGINE OIL 50	40	CD, SF
76 PRODUCTS COMPANY	SDLX 15W40	100	SH/CG-4, CF-4, CF, CF-II, CE, CD-II, CD, EC-I
	NATURAL GAS ENGINE OIL 30	91	SERIES III (API CD)
	NATURAL GAS ENGINE OIL 40	63	SERIES III (API CD)
	CNG 15W40 SDDLX	100	SERIES III (API CD)
	FIREBIRD 10W-30	100	SJ, EC, ILSAC GF-2
	FIREBIRD HD 15W-40	98	CG-4, CF-4, CF, SJ
	FIREBIRD 20W50	90	SJ
	FIREBIRD HD 30	89	CF-2, CF, SJ
CHEVRON	FIREBIRD HD 40	70	CF-2, CF, SJ
	FIREBIRD 5005 GEO 15W-40	100	NA - CNG ENGINE APPLICATION
	ECO 10W-30	100	SH, SG, CD, EC-II, EC
	ECO HD 15W-40	100	CG-4, CF-4, CE, CD-II, CD, SG, SH
	ECO HD SAE 30	100	CG-4, CF-4, CE, CD-II, CD, SG
	ECO HD SAE 40	100	CG-4, CF-4, CE, CD-II, CD, SG
	ENVIROIL 10W-30	40	SH/CD, ILSAC GF-1
	ENVIROIL 15W-40	40	CG-4, CF-4, CF-2, CF, CE, CDII, CD, SH, SG, EC-1, MACK EO-L
LYONDELL	ENVIROIL SAE 30	40	CF-2, CF, CE, CDII, CD, SH, SG

COMPANY	LUBRICATING PRODUCTS	% REREFINED	APPLICATION/MEET'S REQUIREMENTS
COAST OIL COMPANY	AW HYDRAULIC OIL 32 AW HYDRAULIC OIL 46 AW HYDRAULIC OIL 68 AW HYDRAULIC OIL 100 AW HYDRAULIC OIL 150 UNITRAC T303 FLUID	90> 90> 90> 70> 60> 70>	FORMULATED TO MEET US STEEL 127, 136 DENISON, HF-0, HF-1, HF-2, VICKERS M-2950-S, CINCINNATI MILACRON P-68, 69, 70; FORD M-6C32, BF GOODRICH 0152, LEE NORSE 100-1, DIN 51524 PART GENERAL MOTORS LH-04-06 AND 15-1, AFNOR 48-603
	TURBINE/MACHINE OIL T-32, T-46, T-68, T-100	70>	FORMULATED TO MEET JOHN DEERE QUATROL J20A, J20B; FORD-NEW HOLLAND ESN M2C-134D, M2C 41, M2C 48; MASSEY FERGUSON PERMATRON II, M1141; ALLISON C-3; VICKERS I-286-S AND M-2950-S, ALLISON C-4, CATERPILLAR TO-2 MEET PERFE. REQS OF DENISON HF-1, CINCINNATI MILCRON P38, P45, P55, P57, P62, DIN 51524 PART 1, US STEEL 126, MIL-L-17672C, AFNOR E-483690HL
SAFETY-KLEEN OIL RECOVERY COMPANY	CHAIN BAR OIL ATF	80 100	CHAIN SAWS WITH HAND OPERATED OR AUTO CHAIN OLERS GM DEXRON III, DEXRON II-E, DEXRON, Type A FORD MERCON, M2C166H (Type H), M2C138CJ (Type CJ) ALLISON C-3/C-4, CATERPILLAR TO-2 CINCINNATI MILACRON P-68, P-69, P-70; DENISON HF-2, HF-1, HF-0; VICKERS 35VW25, SPERRY VICKERS I-286-S JOHN DEERE J20A, J20B, J20 C, J14C, J21A, ETCETERA CINCINNATI MILACRON P-35, P-58, P-63, P-74, P-76 AND P-77; US STEEL 222 AND 224; AGMA 250.04, DAVID BROWN ET-33/80, DIN 51517 PART 3
ROSEMEAD OIL PRODUCTS, INC.	AW HYDRAULIC OILS 22, 32, 46 AW HYDRAULIC OIL 68 UNIVERSAL TRACTOR FLUID EP GEAR OIL ISO GRADES 32 AND 46 EP GEAR OIL ISO GRADES 68 EP GEAR OIL ISO GRADES 100 EP GEAR OIL ISO GRADES 150 EP GEAR OIL ISO GRADES 220 EP GEAR OIL ISO GRADES 320 AND 460 GLX GEAR OIL 80W90 GLX GEAR OIL 85W140 TYPE C4 TRANS FLUID 10W TYPE C4 TRANS FLUID 30W UNIVERSAL TRACTOR FLUID GEAR OIL PURE MINERAL OIL SAE 90 GEAR OIL MULTIPURPOSE SAE 90 GEAR OIL MULTIPURPOSE SAE 140 GEAR OIL ALL WEATHER SAE 80W90 GEAR OIL ALL WEATHER SAE 85W-140 ECOLITH EP GREASE NO. 2 AW HYDRAULIC OIL 32 AND 46 AW HYDRAULIC OIL 68 AW HYDRAULIC OIL 100 MULTIPURPOSE GREASE FIREBIRD AW OIL 32 AND 46 FIREBIRD AW OIL 68	100 65 85 100 65 60 55 40 25 30 25 100 91 100 41 40 11 55 11 60 100 83 30 30 100 58	API GL-5 PLUS, MACK GO-G, GO-H, MIL-L-2105D APPROVED API GL-5 PLUS, MACK GO-G, GO-H, MIL-L-2105D APPROVED ALLISON C-3 OR C-4 ALLISON C-3 OR C-4 ALLISON C3 OR C4, CATERPILLAR TO-2 API GL-1 API GL-5 API GL-5 API GL-4, GL-5, MIL-L-2105D BEARINGS, GEARS, COUPLINGS, GEN LUBRICATION, ETC. VICKERS, CINCINNATI MILACRON, US STEEL, AFNORE 48-603 DIN 51524, PART 2, DENISON, GM, RACINE, LEE NORSE DIN 51524, PART 2, DENISON, GM, RACINE, LEE NORSE DIN 51524, PART 2, DENISON, GM, RACINE, LEE NORSE INDUSTRIAL AND AUTOMOTIVE APPLICATIONS DENISON HF-O, HF-1, HF-2; CIN MILACRON P-68, P-69, P-70, US STEEL 127, VICKERS M-2950-S, I-286-S, REXROTH, SUNSTRAND HYDRAUL.

CALIFORNIA REREFINED LUBRICATING PRODUCT DISTRIBUTORS

BRAND	DISTRIBUTOR	CONTACT	ADDRESS	CITY	PHONE
Chevron ECO	Ed Staub & Sons Petro.	Ed Staub	P.O. Box 1684	Alturas, CA 96101	(916) 233-2610
Lyondell Enviroil	Blackburn Oil Company	Vernon Blackburn	P.O. Box 177	Arvin, CA 93203	(805) 854-5571
Lyondell Enviroil	Schwebel Petroleum	Ed Kuhn	P.O. Box 512	Bakersfield, CA 93302	(805) 323-8044
Rosemead SOAR	Schwebel Petroleum	Ed Kuhn	P.O. Box 512	Bakersfield, CA 93302	(805) 323-8044
Unocal Firebird	Grapevine Oil Company		524 Dolores Street	Bakersfield, CA 93305	(805) 327-7611
Unocal Firebird	Jim A. Scelzi		12525 W. "H" Street	Biola, CA 93606	(209) 843-2439
Chevron ECO	GLO-GAS	Ken Lloyd	P.O. Box 638	Bishop, CA 93515	(619) 873-7188
Lyondell Enviroil	Merit Oil Co.	Ron Nuckles	1020 W. Bloomington Ave.	Bloomington, CA 92316	(909) 877-4723
Unocal Firebird	Passmore Gas & Oil		391 S. Main	Blythe, CA 92225	(619) 922-7600
Chevron ECO	Warner Petroleum, Inc.	Dave Warner	P.O. Box 6759	Chico, CA 95927	(916) 342-8376
Unocal Firebird	Don & Tim Chambers		501 Miller Avenue	Chico, CA 95928	(916) 342-7600
Chevron ECO	SCCO-Lynch Corporation	Robert Magoan	188 Nirvana	Chula Vista, CA 93211	N/A
Unocal Firebird	Kenny Strickland, Inc.		50-021 Highway 86	Coachella, CA 92236	(619) 398-2031
Chevron ECO	Lee Escher Oil Company, Inc.	Lee Escher	P.O. Box 38	Coachella, CA 92236	(619) 398-2051
Rosemead SOAR	Lee Escher Oil Company, Inc.	Lee Escher	85-119 Ave. 50	Coachella, CA 92236	(619) 398-2051
Unocal Firebird	West Hills Oil, Inc.		425 W. Elm Street	Coalinga, CA 93210	(209) 935-1687
Chevron ECO	Toms Sierra Company Inc.	Roy Toms	P.O. Box 75912	Colfax, CA 95713	(916) 346-2264
Chevron ECO	Davies Oil Company, Inc.	Dick Davies	P.O. Box 691	Colusa, CA 95932	(916) 453-2881
Chevron ECO	Bay Area Diablo Petroleum	Dennis O'Keefe	1031 Galaxy Way	Concord, CA 94520	(510) 603-8670
Unocal Firebird	C.L. Bryant		1130 Pickerell Avenue	Corcoran, CA 93212	(209) 992-4161
Chevron ECO	Downs Oil Company, Inc.	Michael Downs	1296 Magnolia Ave.	Corona, CA 91719	(909) 737-3421
Unocal Firebird	C. Renner, Inc.		255 State Hwy 101 South	Crescent City, CA 95531	(707) 465-1776
Chevron ECO	Otten Distributing, Inc.	Dean Otten	P.O. Box 128	Crescent City, CA 95531	(707) 465-4200
Chevron ECO	Greg's Petroleum Service	Ron Mariani	P.O. Box 307	Delano, CA 93216	(805) 725-2078
Unocal Firebird	Gus Collin Petroleum, Inc.		358 W. El Monte Way	Dinuba, CA 93618	(209) 591-7600
Chevron ECO	The SOCC Group, Inc.	Paul Olivier	145 Vernon Way	El Cajon, CA 92020	(619) 352-4563
Unocal Firebird	Buck Petroleum Co.		9338 Bond Avenue	El Cajon, CA 92021	(619) 390-3400
Chevron ECO	Codgers Petroleum, Inc.	Dick Odgers	P.O. Box E	El Portal, CA 95318	(209) 379-2621
Chevron ECO	Wright's Petroleum Inc.	Jack Wright	P.O. Box 218	Escalon, CA 95320	(209) 838-7905
Rosemead SOAR	Plavan Petroleum, Inc.	John Plavan	321 S. Quince St.	Escondido, CA 92025	(619) 745-6922
Chevron ECO	Plavan Petroleum, Inc.		321 S. Quince St.	Escondido, CA 92025	(619) 745-6922
Unocal Firebird	L & M Renner, Inc.	Mike Renner	1200 Railroad Avenue	Eureka, CA 95501	(707) 443-1645
Unocal Firebird	Ramos Oil Company, Inc.		744 N. Texas Street	Fairfield, CA 94533	(707) 425-5780
Chevron ECO	Leo S. Jones Oil Co. Inc.	Leo Jones	P.O. Box 580	Fallsriver Mills, CA 96028	(916) 386-6138
Unocal Firebird	Mendocino Coast Petroleum, Inc.		720 N. Franklin Street	Fort Bragg, CA 94537	(707) 964-2407
Lyondell Enviroil	Pacific Trend Automotive	Dwayne Scott	47602 Kalo Road	Fremont, CA 94539	(415) 226-9041
Lyondell Enviroil	Van Noy Lubricants	Jon Van Noy	1718 N. Lafayette	Fresno, CA 93705	(209) 266-1177
Coast ULTRA	InterState Oil Company	Dan Sayden	3609 So. Bayley Ave.	Fresno, CA 93725	(209) 233-3221
Unocal Firebird	Silvas Oil Company, Inc.		3217 E. Lorena Avenue	Fresno, CA 93725	(209) 233-5171

CALIFORNIA REREFINED LUBRICATING PRODUCT DISTRIBUTORS

BRAND	DISTRIBUTOR	CONTACT	ADDRESS	CITY	PHONE
Chevron ECO	Robert V. Jensen, Inc.	Mike Jensen	P.O. Box 12907	Fresno, CA 93779	(209) 485-8210
Unocal Firebird	L & M Remmer, Inc.		76 Bear Canyon Road	Garberville, CA 95442	(707) 923-3380
Unocal Firebird	G.N. Renn, Inc.		10 Ronan Avenue	Gilroy, CA 95020	(408) 842-3545
Unocal Firebird	Sutherland Oil Co., Inc.		720 S. Auburn	Grass Valley, CA 95945	(916) 273-9191
Unocal Firebird	G.N. Renn, Inc.		845 Walnut Avenue	Greenfield, CA 93927	(408) 674-5823
Unocal Firebird	Alves Petroleum, Inc.		245 San Mateo Road	Half Moon Bay, CA 94019	(415) 726-4661
Chevron ECO	J J Hage	Roger Pytlewski	3111 Depot Rd.	Hayward, CA 94545	(510) 782-2040
Unocal Firebird	Hemet Oil Company, Inc.		106 S. Ramona Street	Hemet, CA 92543	(909) 658-5180
Chevron ECO	R.E. Goodspeed & Sons	Kevin Carroll	P.O. Box 401924	Hesperia, CA 92340	(619) 808-8888
Unocal Firebird	Sellers Petroleum Products, Inc.		350 W. Aten Road	Imperial, CA 92251	(619) 355-7900
Unocal Firebird	Silvas Oil Company, Inc.		1250 Laurel Street	Kingsburg, CA 93631	(209) 897-5117
Unocal Firebird	Walsma Oil Company, Inc.		44141 N. Yucca Avenue	Lancaster, CA 93534	(805) 945-4772
Unocal Firebird	Channel's Union 76, Inc.		Highway 395 & Main St.	Lee Vining, CA 93541	(619) 647-6303
Chevron ECO	Gary V. Burrows Inc.	Gary Burrows	P.O. Box 546	Lemoore, CA 93245	(209) 924-2064
Unocal Firebird	Bay Counties Petroleum, Inc.		3357 Gardella Plaza	Livermore, CA 94550	(510) 447-2882
Chevron ECO	General Petroleum Resources	John Zar	P.O. Box 499	Long Beach, CA 90801	(213) 332-4454
Lyondell Enviroil	General Petroleum Resources	Anthony Miselich	P.O. Box 499	Long Beach, CA 90801	(310) 944-0263
Lyondell Enviroil	Merrimac Petroleum, Inc.	Mary Hazelrigg	444 W. Ocean Blvd, Suite 1106	Long Beach, CA 90802	(310) 983-9350
Chevron ECO	A P Fischer Inc.	Bob Baughman	1601 Caspian Ave.	Long Beach, CA 90813	(213) 436-7251
Lyondell Enviroil	South Bay Petroleum	Alesia Puentas	1430 W. 9th	Long Beach, CA 90813	(310) 590-0371
Chevron ECO	Windecker Inc.	John Windecker	P.O. Box 271	Los Banos, CA 93535	(209) 326-5658
Unocal Firebird	C.L. Bryant, Inc.		101 W "H" Street	Los Banos, CA 93635	(209) 826-2236
Unocal Firebird	Jim Jonas, Inc.		16445 Morgan Valley Rd.	Lower Lake, CA 95457	(707) 994-6535
Chevron ECO	J.W. Myers, Inc.	Jim Myers	P.O. Box 809	Madera, CA 93639	(209) 673-3101
Unocal Firebird	Stohlman & Rogers, Inc.		427 14th Street	Marysville, CA 95901	(916) 742-8512
Chevron ECO	Lubricating Oil Services	John Donahue	5989 South District Blvd.	Maywood, CA 90270	(213) 268-3946
Chevron ECO	Guthrie Petroleum Inc.	Jim Guthrie	P.O. Box 36	Mendota, CA 93640	(209) 655-4764
Unocal Firebird	Aromalene Oil Co., Inc.		1590 W. 16th Street	Merced, CA 95340	(209) 722-2752
Unocal Firebird	Grapevine Oil Company		Valpredo & Highway 99	Mettler, CA 93389	(805) 858-2249
Lyondell Enviroil	C.L. Bryant, Inc.	Charles Bryant, Jr.	237 E. Whitmore Ave.	Modesto, CA 95351	(209) 537-7600
Chevron ECO	N.H. Breshears Inc.	Holley Breshears	P.O. Box 392	Modesto, CA 95353	(209) 522-7291
Unocal Firebird	C.L. Bryant, Inc.		237 E. Whitmore Avenue	Modesto, CA 95358	(209) 537-7600
Chevron ECO	Ramos/Strong Inc.	Scott Strong	P.O. Box 938	Mojave, CA 93501	(805) 824-4250
Lyondell Enviroil	Valley Oil Co.	Bob Christensen	P.O. Box 326	Mountain View, CA 94042	(415) 967-2253
Unocal Firebird	Napa Valley Petroleum, Inc.		691 Lincoln Avenue	Napa, CA 94558	(707) 226-3378
Unocal Firebird	C.L. Bryant, Inc.		532 N. Sierra Avenue	Oakdale, CA 95361	(209) 847-0261
Lyondell Enviroil	Owen Croll Distributing	Richard Croll	2871 E. 7th Street	Oakland, CA 94601	(510) 534-5262
Chevron ECO	Frank E. Sullivan Inc.	Tim Sullivan	P.O. Box 55907	Orildale, CA 93388	(805) 393-5005
Chevron ECO	Southern Counties Oil Co.	Frank Greinke	P.O. Box 4159	Orange, CA 92613	(714) 744-7140

CALIFORNIA REREFINED LUBRICATING PRODUCT DISTRIBUTORS

BRAND	DISTRIBUTOR	CONTACT	ADDRESS	CITY	PHONE
Chevron ECO	Pollard-Swain, Inc.	Dale Swain	P.O. Box 807 515 South Street 3815 Vineyard Ave.	Orange, CA 92666 Orland, CA 95963 Oxnard, CA 93030	(714) 637-1531 (916) 865-9696 (818) 504-0956
Unocal Firebird	Eugene Toney, Inc.				
Chevron ECO	Ventura Oil Company, Inc.	George Gullickson	3815 Vineyard Avenue	Oxnard, CA 93030	(805) 485-7855
Unocal Firebird	Ventura Oil Company, Inc.				
Lyondell Enviroil	South Bay Oil	Dean Mounen-Laurens	7739 Monroe Street	Paramount, CA 90723	(310) 633-3224
Chevron ECO	Western Petroleum Inc.	Leigh Ross	P.O. Box 889 1145 Broadway Court	Paramount, CA 90723 Placerville, CA 95667	(213) 531-0192 (916) 622-1430
Unocal Firebird	G.N. Renn, Inc.				
Chevron ECO	Pitcock Petroleum Inc.	Aubrey Pilcock	P.O. Box 23684 404 E. Commercial St.	Pleasant Hill, CA 94523 Pomona, CA 91767	(510) 934-1200 (818) 967-9694
Chevron ECO	Orange Line Oil Co., Inc.	John Strasser	142 S. San Antonio St.	Pomona, CA 92667	(714) 744-7140
Unocal Firebird	Southern Counties Oil Co.				
Chevron ECO	Bob's Petro Products, Inc.	Bob Taylor	P.O. Box 248 2940 Arcade Way	Ponterville, CA 93258 Redding, CA 96002	(209) 784-2184 (916) 222-3031
Coast ULTRA	InterState Oil Company	Bill Simas	P.O. Box 492200	Redding, CA 96049	(916) 221-2566
Chevron ECO	Cross Petroleum Inc.	Dennis Cross	2340 Wyndham Lane	Redding, CA 96099	(916) 241-2196
Unocal Firebird	Porter's Petroleum Products	Joe Rhodes	1120 I Street	Reedley, CA 93654	(209) 638-2275
Lyondell Enviroil	Rhodes Inc.	Mel Dawson	P.O. Box 360 8221 Alpine Avenue	Rocklin, CA 95677	(916) 885-2160
Chevron ECO	InterState Oil Company	Bill Simas	P.O. Box 297670	Sacramento, CA 95826	(916) 457-6572
Coast ULTRA	Hunt & Sons Inc.	Dean Hunt	P.O. Box 3740	Sacramento, CA 95827	(916) 363-5555
Chevron ECO	Selby Petroleum, Inc.	Ron Selby	P.O. Box 5728	Salinas, CA 93912	(408) 757-2011
Chevron ECO	Poma Distributing Co., Inc.	Michael Poma	P.O. Box 5728 6220 Fairmount Ave.	San Bernardino, CA 92412	(714) 877-2441
Unocal Firebird	Cosby Oil Company	Jerry Yingling	9089 Clairemont Mesa Blvd.	San Diego, CA 92120	(619) 280-6884
Chevron ECO	Guam Movers, Inc.		9530 Chesapeake Dr. #504	San Diego, CA 92123	N/A
Unocal Firebird	Sellers Petroleum Products, Inc.		P.O. Box 26940	San Diego, CA 92126	
Chevron ECO	S & S Incorporated	Eric Kroesche	2121 3rd Street	San Diego, CA 92126	(619) 566-0830
Lyondell Enviroil	San Francisco Petroleum	Doug Seames	1655 Jerrold Ave.	San Francisco, CA 94107	(415) 621-5226
Rosemead SOAR	Peninsula Oil Company	Tom Wilson	22101 Colorado Street	San Francisco, CA 94124	(415) 282-4414
Unocal Firebird	West Hills Oil, Inc.				
Chevron ECO	Coast Oil Company	Andy Andrews	4250 Williams Road	San Joaquin, CA 93660	(209) 693-4482
Coast ULTRA	Coast Oil Company	Mark Mitchell	4250 Williams Road	San Jose, CA 95129	(408) 252-7720
Lyondell Enviroil	Coast Oil Company	Gary Rowe	4250 Williams Rd.	San Jose, CA 95129	(408) 258-7244
Chevron ECO	J.W. Abbott Distributing	Larry Abbott	P.O. Box 641567	San Jose, CA 95154	(408) 552-0275
Unocal Firebird	Mark Domingues Petroleum, Inc.		75 Prado Road	San Luis Obispo, CA 93401	(805) 543-4943
Rosemead SOAR	J.B. Dewar, Inc.	Ken Dewar	P.O. Box 3059	San Luis Obispo, CA 93403	(805) 543-0180
Chevron ECO	J.B. Dewar, Inc.	Ken Dewar	P.O. Box 3059	San Luis Obispo, CA 93433	(805) 548-0180
Unocal Firebird	Michael Albano		Beth 78	San Pedro, CA 90731	(310) 832-0348
Chevron ECO	Nickey Petroleum Co., Inc.	Frank Nickey	1335 Santiago St.	Santa Ana, CA 92702	(714) 547-8123
Lyondell Enviroil	O'Neals Service Station Supply	Rich Cavali	1309 E. Pomona	Santa Ana, CA 92705	(714) 542-3548
Lyondell Enviroil	McCormix Corporation	Bruce McGee	P.O. Box 648	Santa Barbara, CA 93102	(805) 963-9366
Lyondell Enviroil	Devco Oil Company	Jerry Belcher	139 Encinal	Santa Cruz 95061	(408) 423-2121

CALIFORNIA REREFINED LUBRICATING PRODUCT DISTRIBUTORS

BRAND	DISTRIBUTOR	CONTACT	ADDRESS	CITY.	PHONE
Unocal Firebird	Cosby Oil Company		12902 E. Park Street	Santa Fe Springs, CA	90670 (310) 946-4404
LyondeLL Enviroil	Gen. Petro. c/o Petro Lube	Phil Barnecut	10122 Freeman Ave.	Santa Fe Springs, CA	90670 (562) 944-0263
Unocal Firebird	Norman S. Buvick Petrol. Inc.	Darren Dominguez	700 W. Church Street	Santa Maria, CA	93454 (805) 925-7676
Chevron ECO	Polkins & Polkins Inc.	Brad Polkins	P.O. Box 1725	Santa Maria, CA	93456 (805) 925-3650
Chevron ECO	Redwood Oil Co., Inc.	Bob Barbieri	P.O. Box 428	Santa Rosa, CA	95402 (707) 546-0756
Unocal Firebird	Royal Petroleum Company		364 Todd Road	Santa Rosa, CA	95402 (707) 586-3405
LyondeLL Enviroil	Mac-Go Inc DBA 1st Auto. Dist.	Mike Macchia	267 East Harris St.	So San Francisco, CA	94080 (415) 244-9400
Chevron ECO	Olympian Oil Co.	Scott Heller	260 Michele Court	So. San Francisco, CA	94080 (415) 583-8314
Unocal Firebird	C.L. Bryant, Inc.		201 Hospital Road	Sonora, CA	95370 (209) 536-0767
Chevron ECO	J.E. Dewitt, Inc.	John Dewitt	P.O. Box 3867	South El Monte, CA	91733 (213) 283-8123
LyondeLL Enviroil	Van de Pol Enterprises, Inc.	Ron Van de Pol	1001 W. Charter Way	Stockton, CA	95206 (209) 465-3421
Unocal Firebird	Van de Pol Enterprises, Inc.	Ron Van de Pol	1001 W. Charter Way	Stockton, CA	95206 (209) 465-3421
Chevron ECO	Woolsey Oil Inc.	Norm Crum	166 Frank West Circle	Stockton, CA	95206 (800) 692-3782
Unocal Firebird	Goods Petroleum Products, Inc.		702-190 Johnstonville Rd.	Susanville, CA	96130 (916) 257-4925
Unocal Firebird	Brown & Reich Petroleum, Inc.	Tom Andrade	216 S. 6th Street	Taft, CA	93268 (805) 765-5457
Rosemead SOAR	Temecula Oil Products	Rob Hoeeling	27882 Del Rio Road	Temecula, CA	92390 (909) 676-2660
LyondeLL Enviroil	Shoop & Luther, Inc.		22808 S. Frampton Ave.	Torrance, CA	90501 (213) 749-7111
Unocal Firebird	C.I. Bryant, Inc.		1000 N. Front Street	Turlock, CA	95380 (209) 668-7676
Unocal Firebird	Eel River Fuels, Inc.		3371 N. State Street	Ukiah, CA	95482 (707) 462-5554
Chevron ECO	B.C. Stocking Distributing	Joe Stocking	P.O. Box 567	Vacaville, CA	95696 (707) 448-2313
LyondeLL Enviroil	Schwartz Oil	Trudy Emetrio	27241 Henry Mayo Dr.	Valencia, CA	91355 (805) 259-4000
Rosemead SOAR	General Petroleum Resources	Jack Dempsey	43 South Olive St.	Ventura, CA	93001 (805) 648-2000
Chevron ECO	Pinto Petroleum Inc.	Tony Pinto	P.O. Box 1948	Ventura, CA	93002 (805) 643-6129
Unocal Firebird	Beck Oil, Inc.		16640 "D" Street	Victorville, CA	92392 (619) 245-4192
Unocal Firebird	J.C. Lansdowne, Inc.		1821 W. Tulare	Visalia, CA	93277 (209) 732-4874
Chevron ECO	J.A. Fischer Inc.	Joe Fischer	P.O. Box 391	Visalia, CA	93279 (209) 732-8382
Unocal Firebird	G.N. Renn, Inc.		103 Lee Road	Watsonville, CA	95076 (408) 724-5160
Unocal Firebird	Porter's Petroleum Products		Main & Washington	Weaverville, CA	96093 (916) 623-2181
Rosemead SOAR	Ramos Oil Company, Inc.	Hep Hepner/Kent Ramos	P.O. Box 401	West Sacramento, CA	95691 (916) 371-2570
Chevron ECO	Ramos Oil Company, Inc.	Bill Ramos	P.O. Box 401	West Sacramento, CA	95691 (916) 624-4250
LyondeLL Enviroil	Ramos Oil Company, Inc.	Hep Hepner	1515 S. River Rd.	West Sacramento, CA	95691 (916) 371-2570
Unocal Firebird	Eugene Toney, Inc.		Hwy 99 & Co. Rle 53	Willows, CA	95963 (916) 865-9696
Chevron ECO	Burrows Oil Co.	Bob Burrows	P.O. Box 8	Willows, CA	95988 (916) 934-4767
Chevron ECO	Joseph Celoni	Joseph Celoni	P.O. Box 846	Woodland, CA	95695 (916) 866-2126
Coast ULTRA	Norcal Petroleum	Bill Wren	183 West Main Street	Woodland, CA	95695 (916) 662-5481
Unocal Firebird	D.G. Wharton		1152 Cross Street	Woodland, CA	95776 (916) 662-2902
Unocal Firebird	Frank's Fuel Oil & Heating		1500 Fairlane Road	Yreka, CA	96097 (916) 842-2416

Acknowledgements

CEC would like to thank the many individuals, agencies and companies for their assistance in the development of this newsletter. Many hours were spent on the telephone with fleet supervisors, vehicle manufacturer representatives and rerefined oil manufacturers to gather the information presented on the previous pages. Every fleet supervisor listed in the tables on pages 4-7 took time to respond to our questions and review the tables. Special thanks go to Pete Hammerich from the City of San Luis Obispo, and Dave Kerstin from the City of Lakewood, for their direction on the rerefined oil testing section.

Jim Hoffman of Safety-Kleen, Richard Schoensiegel of Rosemead Oil, Mark Mitchell of Coast Oil, Paul Torre of Chevron, Bob Helmhold of Lyondell, and Pam Scott and Austin Fong of 76 Products provided distributor lists and reviewed the lubricating product tables.

Printed on 50% recycled paper with 20% postconsumer content

CEC would also like to thank Mike Corbett of California Fleet News for publicizing the workshops, and Nora Keenan and Caroll Mortensen of the CIWMB for supporting the development of this newsletter.

Newsletter developed by:

Community Environmental Council
Gildea Resource Center
930 Miramonte Drive
Santa Barbara, CA 93109
805/963-0583
805/962-9080 (fax)
email: jzachary@rain.org

Research: Jill Zachary and Jeanne Zokovitch
Production: Jill Zachary

GILDEA RESOURCE CENTER
COMMUNITY ENVIRONMENTAL COUNCIL

930 MIRAMONTE DRIVE, SANTA BARBARA, CA 93109

Non-Profit
Organization
U.S. Postage
PAID
Santa Barbara, CA
Permit No. 210